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The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 7>:

25 **gnm_7**

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5

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 8>:

gnm_8

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TATTCATATATCCGCAAGTCATCAGAAGTTGAAGCAGGTAACCGGTTGCTTTTGA
TTAACAGGCAACCCGTTTTATGGTTTATCCGTTCAATTGCTTATTTGCTCAAATATACGG
15 CAAGCCTTTCAACAATCCGCATTGCCGCTTCATCTTTACTTGTTTCGGGAAAAGACAGTT
CCCCGTCGTCGCCGATAATGGTAATCCGGTTGGTCCGTTTGCCATTGCGATTGAAACAT
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CATTCTCCGTTTTCAGCGGCAAAACCGATGCAGAACGGCGGGTTCGGTAATGAGGCAATAG
AAGCCAAAATATCGGGGTTCTCATCCAATTCGATGGATAACGGTTTGGCATTTTATCTT
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20 TAAAAGCATCTTGTGTCGATTAAACGATGCACTGCGCGATGCATATTTTCGGCACTGA
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GGCTGACTTCTGCACCGCGCGCACGGCACGCCCCGCGCCAAAGCCACGCCCATTTTCCCGC
TGGAGATATTTGTGATGCCTCGGACAGGGTCAATGGCTTCAAATGTGCGCACCTGCGGTAA
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25 ATTCGGCAGGTTCCGGCATCCTTCCCATACCATTTCTCCGCAAGCCTGTTGCCCCAAGC
CCGGCATATAGACAGTAATGCCGTCTGAAACCAAGTTGTGCGATATTCGGTTGGTTGGCAG
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30 CGTTTGAACCGTTGCCCGCTGCGTGTGCGGTGAGGACAGGATTGCCGCTTAAAGCCTGAA
AAGTCAGCGGAGAAACAAATTCAGTTGCCGAGCGGCTCATAACCACCGTAACCGAATGCC
CCTGTTTTTTCAGCAGTCGCACCAACTCGCAAGACTTATACGCCGCAATACTGCCCCGTTA
CACCTAAAAGAATATGTTTGCCCATTTTGACAATTTCTAATTACGAAGAAAAACAGCAG
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40 TAACAAAACAGATTACCGATAAGTGTGAGTGCCTTGAGTCTCACACTGTTTGAAAGACAG
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CGGGTGAGTAACATATCGGAACGTACCGAGTAGTGGGGGATAACTGATCGAAAGATCAGC
45 TAATACCGCATACGTCCTTGAGAGAGAAAGCAGGGGACCTTCGGGCCCTGCGCTATTTCGAG
CGGCCGATATCTGATTAGCTAGTTGGTGGGGTAAAGGCCCTACCAAGGCGACGATCAGTAG
CGGGTCTGAGAGGATGATCCGCCACACTGGGACTGAGACACGGCCAGACTCCTACGGGAG
GCAGCAGTGGGGAATTTTGGACAATGGGCGCAAGCCTGATCCAGCCATGCCGCGTGTCTG
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50 AGCGGCTGATGACGGTACCTGAAGAATAAGCACCGGCTAACTACGTGCCAGCAGCCGCGG
TAATACGTAGGTGCGAGCGTTAATCGGAATTACTGGGCGTAAAGCGGGCGCAGACGGTTA
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TCGAGTGTGTCAGAGGGAGGTAGAATTCCACGTGTAGCAGTGAATGCGTAGAGATGTGG
AGGAATACCGATGGCGAAGGCAGCCTCCTGGGACAACACTGACGTTTCATGCCCCGAAAGCG
55 TGGGTAGCAACAGGATTAGATACCCCTGGTAGTCCACGCCCTAAACGATGTCAATTAGCT
GTTGGGCAACCTGATTGCTTGGTAGCGTAGCTAACGCGTGAAATTGACCGCCTGGGGAGT
ACGGTCGCAAGATTAAAACCTCAAAGGAATTGACGGGGACCCGCACAAGCGGTGGATGATG

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TGGATTAATTTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACATGTACGGAATcCTCC
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 GTGTCGTGAGATGTTGGGTTAAGTCCCGCAACGAGCGCAACCCTTGTCATTAGTTGCCAT
 CATTACAGTTGGGCACTCTAATGAGACTGCCGGTGACAAGCCGGAGGAAGGTGGGGATGAC
 5 GTCAAGTCCCTCATGGCCCTTATGACCAGGGCTTCACACGTCATACAATGGTCGGTACAGA
 GGGTAGCCAAGCCGCGAGGCGGAGCCAATCTCACAAAACCGATCGTAGTCCGGATTGCAC
 TCTGCAACTCGAGTGCATGAAGTCGGAATCGCTAGTAATCGCAGGTCAGCATACTGCGGT
 GAATACGTTCCCGGGTCTTGACACACCGCCCGTCACACCATGGGAGTGGGGGATACCAG
 AAGTAGGTAGGATAACCACAAGGAGTCCGCTTACCACGGTATGCTTCATGACTGGGGTGA
 10 AGTCGTAACAAGGTAGCCGTAGGGGAACCTGCGGCTGGATCACCTCCTTTCTAGAGAAAG
 AAGAGGCTTTAGGCATTACACTTATCGGTAAACTGAAAAAGATGCGGAAGAAGCTTGAG
 TGAAGCAAGATTTCGCTTAAGAAGAGAATCCGGGTTTGTAGCTCAGCTGGTTAGAGCACA
 CGCTTGATAAGCGTGGGGTCGGAGGTTCAAGTCCTCCAGACCCACCAAGAACGGGGGCA
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 15 CCTCCACCAATACTGTACAATCAAAACGGAAGAATGGAACAGAATCCATTAGGGCGAC
 GTCACACTTGACCAAGAACAAAATGCTGATATAATAATCAGCTCGTTTTGATTGCACAG
 TAGATAGCAATATCGTACGCAGGG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 9>:

20 gnm_9

GTAGCCGGCGCAGACAAGCCTTGCGGAGCGGCATCTGCCGAACAAGCCTCCCTCGCCGA
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 CGATTTCGCTCAAACGCATCCTCGCGCACGGCGGCAAAACCGTCAGCGAAGCCGAGTTGCG
 25 CGAACTGACCCGCCGTAAAAACGACAACCTACGTCGAGATGATTAGGCAGTCAAACCCGA
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 CGCCCTTGCGTCCGCCAGTAAAAACGGCCCGTTCTGCTGGAACGCATGGGGCTGACCCA
 CTTCTTCGACGCCATTGCCGACCCTGCCGCCGTGCGACATTCCAAACCCGCCCCGACAT
 CTTCTTCGACGAGCCGAGGGCGTAGATGCGGACATCCGCCAATGCATCGGCATTGAAGA
 30 AGCCGCGCCCGGCGTCCCGCCATCAAAGCCGCCGGCGCCTTGCCATCGGCGTGGGCAA
 AGCCGAAGACTTGGGCAGCGACATCGCGCTGGTCTCCGGCACCGCCGAGCTGACCTACGC
 CTACCTGCAAAGCGTGTGGGAACAGTCGGGCAGGTAAACGCGTCAGATAAAGTGTCAAG
 GAAGCAAAAGACCGTCTGAACAGTGTTTCAGACGGCCTTTTTGCTTTTAGAACAGAATGA
 TAACCCAACTTACGCAACCCTAAAACTAAATGCCAATCTCTTAACCATGCTATTCAAAT
 TTATTTGAACGATTTTTTTTCTAACCAGCCAACCTTAACAATCACTATTTAAATGCGCGC
 35 CGATGTTCTGTCTCCGCTGTATGCGGCTTGGGCGACGGCGAGGCTGCATTGAGCAGGT
 TGCGGTTTTCTGATTTCGACGCGGTGTGCGGTTGCGCTTGGTTTTGCTTCCAAAGCTGCA
 GTTGGGCGATGGCGCGGCGCAGGCCGCTATCGTTGCGTAGGATGCCTAGATGGCGTTGGT
 TGAACGTTTGCAGGACGGGCGGCTGAATGTGTTTGAAGGTCGTCTGAAAAGATGCCTG
 40 CTTGCGCGGAGAGGCTTTCAGACGGCCTTTGGAATGGTTGCGCTTGGAAATGCTTGTCCGT
 CTGCGATGGCTTGGGCGCAGAGCCTTGGCGTCACGACGCATTGAGCAGGGAGTTGCTGG
 CAAGGCGGTTGGCTCCGTGCAGCCAGTGCAGGCGGTTTCGCCCAAGGCGTAGAGCTGCG
 GCAGGGAGGTTCTGCCGAGGGGTCGGTTTGGATGCCGCCGAGGTGTAGTGTGACGG
 GGCGGACGGGGAIGGCTTGGCGCGTGATGTCTAGGCCGCATTGGGATAAACAGTGTGAT
 GGATGGATGGGAAATGCCGGCGGACGAACGCTGCGGGTTGATGGCTGATGTGAGCGAGA
 45 CGAAGTCTTGCGTTTGTGCGGATTTCGGCTGCGATGGCGCGGGCAACGATGTGCGCGC
 GTGCGAGTTCCGCGCGGCGGTCGTAATGCGGCATAAATCGTTCCCGCCTTGGTTGGTCA
 GGATGCCGCTTCGCCGCGCACGGCTTCGGAATGAGGAAGGTGCGTCCGTTTTTCAGACG
 GTCTTGCCAAGCCTGTGGGGTGGAATTGGATAAATTCAGAGTTTCCAACCTGCGCAGCCTG
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 50 AAATCTGTCCCAAGCCGCCGCTGCGAGTACCGTATGCGGGCGCGGATGCGGTAGGTTT
 CTTGTGTTGCGGAGTCGAGGACGGTCAGTCCGCACGCCGCGCCTGATTGCGTTTTGAATGT
 CCAACGCCATCTGCCGCTCGCAAACGCGGATGTTGCGGCGGCGGCGTATTTGGGCAATCA
 GGCTCTGCATGACGGCTTCGCCCCTGTAGTCGGCGACGTGGGCGATTTCGTGCGCAGGTAT

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CCCCGCCTTCACGCGTCAGGTGCAGGCCGTTATGATTCCGGTTCGAACGCCACGCCCTGCG
CCAGCAGCCATTTCGATTGCCGGTTTGGCCCTGCGACAGGATGGCGCGGACGGCGGCTTCAT
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TGGCGTATGCTGTAGCCAGCGGCATGGTTTTTCAGTGTTCATAGACAAGGCCCAAAAACACA
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TGAGCATGGAAGAACCGCAGACTTCGCTTAAATTGCTACAGTCAGAAAGAGCCAGTGCA
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GCTTTTGCAGTGTGCTGGTCGAGCCGACCACGTGCGCCAGTTCGATGACGCTTTGCGCG
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TGCCCTTTGAATTCGTTGTGAACGATGCACGAACCTGCCACAACAGCATATCCGCGCCC
GTTTCGCGGCAGATGTAGTCGCCGAGGTGGCGGTGCGGTCCCCAAATCAGCTTCTCGCCG
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AGACGATCTGCCGTCTCGCGGTGCGGCGTGTGCGCAACCTTCGCCACGCCTGACGGATT
TGGCAGGCGGAAGTCGGCGTTTGGATGAGTGGCATATCGTAGTCGAACGAGCGGCGGGCG
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ACAGGTTTGAATACCGTAAAACCGACCCGCTTCGTTCCGACAAAACCGCTTTGGTTTACA
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GCCGCTTCCGCGACGACGTCTGCCCCGACAGGCTGATTCGGACATCGGACTGCCGCTGG
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ACGAAGCCGCGACAGTACAAAATAGTACGGAACCGATTCACTTGGTGTGTTGAGCACCTTA
GAGAATCGTTCTCTTTGAGCTAAGGCGAGGCAACGCCGTACCGGTTTTTTGTAATGAAG
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5 GCCGTCCGCGCAGGTTCAGACGCTTGCCGCCGTGCAAGGCAACGCCCGCGCGTGTCTCGCC
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10 GCCAAGCCGTGCAGCAGGCAAAACAGGCTGTCTGGAGCATTGACCTGCGTGGAAATCGAA
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15 TCAGGCAAGGAACCGCTTAACCCCTAATCCGGTTATTGCCTCAGGGAGGAAATGCCGTCTG
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CAGGCAGGTATTTTGTTCGCCGACAGCGCGGCGGCATCGGTAGGGCAGGAAAAAGGACG
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20 ATAAAGATAATCACAATCATCCATATCTGCCGCCCGTCAATCCGCTTGGCGGGCGGCAAA
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TCCCGAACGTTATGGCGATATCAATTGTTGGACAGCGAAGCAATATCGCCGAAT
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25 AGAAGCGGCGGCGATTCTGCACACGGTTCGCGATTGGAAAAACAAACGCGTGGCATAGTG
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30 TACAACGGCGTGGCAATCGTCAGCCGACGCGTCCCGCAGGACGTGCATTTGCGTTTGCCC
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CAGTGGTTTGCCGCACTGACGGAGTTTGTCCGCGATGAAATGACCCGCCACGGCAAACTG
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35 TGGCACGAAAAATCCACTGTTCGTCCGTGCAACGGCAGTGGTTTCAAACCTGCTGGAT
TTGGGACTGACCGACAGCCTGCGCCAAGTCCATCCCGAAGGCGCGTTCTATACCTGGTTC
GACTATCGCGGCGCGATGTTCCAACGCAAACTGGGCTGCGTATCGACCATATTTTGGTG
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40 TGATATGGCGTTGACAAGCATCCTTATCTTCAATTTATTCAATAGGATAGCTTTCTATCT
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45 GCCTTTATTGTGCCATGCAGTTGAGTTTGATGAACTCAATATAACGACTGTAAAGATAA
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50 ATGTTTATTAGTGTGACAAAATATCCAGTACCAATATTGATGAATTTTTAGCATCTTTC
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AGATAAATCCTTTTTTCAATCCCGACAGATAACACAGATTTTTATAAGGGTTTTTATTT
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55 ATAGTGGATTAAATTTAAACAGTACAGCGTTGCCGTACTATTGTACTGTCTGCGGCTT
CTGCGCTTGCTCTGATTTTGTAAATCCACTATATCTGCATCAGTTTCATGAAACGCAA
GTGGAAGCGTCAAACAATGATTGCCCATTTTGACCGGCTGATTGACGAATTGGACAAA

CAAATCGACGACCACACCCACACGCATTTTGACGGCAAAGCCCAAGTGGCAGAACAAATC
 AAAGGCATCGGTTTCGATAACGACGGCTACGCTGATGGCGATGCTGCCCGAATTGAGGCGG
 CTGTCCGACAAACGGATAGCGGGTTTGGCCGGCATTGCCCCGCACCCGAGGGAGAGCGGG
 5 GAAACCAAATTCAAAAGCCGCTGCTTTGGCGGAAGGTCTGCGGTGCGTAAGGCACTGTAT
 ATGGCTACCGTGGCAGCGACACGTTTTGAACCGCTTATTCGGGATTTCCACCAACGCCCCG
 CTGTCCGAGGGTAAGCCGTATAAGGTTGCCGTTACGGCATGTATGCGCAAACCTGCTGACG
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 10 CCGCTCGATGAATCGTCAGAAATACCTGCATCGTCATTCCCGCGCAGGTGGGAATCCAGA
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 CCACCTTCGTGTGAATGACGGAATGTAGGTTGCTGGGAATGACGTGGTGCAGGTTTCCGT
 ATGGATGGATTTCGTGCTATCCCGCGCAGGCGGGAATCTAGTCTGTTGCGTTTCAGTTATTT
 TCGATAAATGCCTGTTGCTTTTTCATTTCTAGATTCCCACCTTCGTGGGAATGACGGGATT
 TTAGGTTTCTGATTTTGGTTTTCTGTCCCTGTGGGAATGACGGGATGTAGGTTCTGATGGA
 15 ATGACGTGGTGCAGGTTTCCGTGCGGATGGATTGCTCATTCCTGCGCAGGCGGGAATCCA
 GTCTGTTGCGTTTCAGTTATTTCCGATAAATGCCTGTTGCTTTTCATTTCTAGATTCCCA
 CTTTCGTGGGAATGACGGTTCACTGCTACGGTTACTGTCAGGTTTCGGTTATGTTGGAA
 TTTCCGGAACTTATGAATCGTCATTCCCGCGCAGGCGGCAATCTGGAATTTCAATGCCT
 CAAGAATTTATCGGAAAAAATAAAACCCTTCCGCCGTCATT

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The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 10>:

gnm_10

GTCGGTTCGGTTTTGATGCAGCGTATGAAAGAAGAAAACGACTTCGCCACATTCTCTGAA
 GCGTTTTTCTTTTACCCTTCCAACGTCGGCGGCGCAGCCCTGATTTTCGGTCAGGCGGCT
 25 AAAACATTATTAGATGCCAACAATGTTGCCGAACCTCGCCAAAATGGACATCATCGTTACC
 TGCCAAGGCGGCGATTACACCAAATCCGTCTTCCAAGCCCTGCGCGACAGCGGCTGGAAC
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 GACCCTGTCAACCGCGATGTCTCGACAACGGTCTCAAAAACGGCGTGAAAACTACATT
 30 TTGGTCAATGGGCAACCGATGACCTACCAAGCCGCTTCCGGCGCGGGCGCGAAAAAC
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 GATCCTGCCGGCTCGATTCTCGACATCGACCGCAAAGTATCCGATTTCTGCGCAGCGAA
 GACTATCCGAAAGCCAACTTCGGCGTACCGCTCGCCGGCAGCCTGATTCCTGGATTGAC
 GTGGATTTGGGCAACGGCCAGTCCAAAGAAGAATGAAAGGCGGCGTGGAACCAACAAA
 35 ATCCTCGGCCGCGAGCGACATCCAACCGTGATTGACGGCCTGTGCGTCCGCGTGGCGCG
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 ATCGAAACGATTTTGGCAGGCGCGAATGACTGGGTGAAAGTCATCCCCAATGAAAAAGAA
 GCCAGCATCCACGAGCTGACTCCTGCCAAAGTTACCGGCACGCTGTCCGTCCCTGTGCGA
 40 CGCATCCGCAAACCTGGGCATGGGCGGCGAATACATCAGCGCGTTACCGTCCGCGACCAA
 CTTTTGTGGGGCGCTGCCGAACCGCTGCGCCGCGTATTGCGTATCGTGTGGGCAGCCTG
 TGAGCCCTGTTTGAATGGAAATGCCGTCTGAAGCCTGTTTCAGACGGCATTTCCTTGCA
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 GGCGGTATGCGGCAGCCCGACTTTATCCGAACCTGATGCGCCTGCACGTCAATGAAAAACA
 45 GCCCGATTGCGGACTTCTGCTACAGCCGAAATCCGATAAGGCAAGCGTTCACGCCAGC
 AACATTTCTGTCATCAGCTTCATACCCCACTGCCAGCCGCGGAGCATGCCGTTCAAACCTG
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 50 ATGTTGGCAATTTTCTCCGTGTGAGGATGTCTGCCTGATACAGCCACGCCAAAAATGCG
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 GTCTGAAGCCCTGCCATTCCTTATGCTTTGACCGGCGACGCTTCGGACATCTGC
 ACGACGGGATAACTGATCGCCCAACGGTCTATCCACATCTGATCCTCTCCGGCATCGCGT
 ATCAGCCAAAGCGTCAAACTTCGAGTTCAAAACCCTGCATACCGCCCCGCTATTTTCAG

CAGGTCCCGGAGGGTAAAGGCGATGAGCAGCGAAGCGGGTACGCTCAATATGGCGCAGAC
 GGTCAAGCAGGCAAAAATATTCACCAACCCGCCAGCCTTTCCAACCCAAACATTTGGA
 CGCAATCAGCAGGCAGGGCAGGCAAAATCAGCAGCCACACCAACGCCCATATCGGGTTTGC
 CTTGGTCCGGCGCAAGCCAGCCTTGCATCCGCGACAACATAAATATCGCCACACCAACAT
 5 GGGCAGGATAAACGCAGCGACGACCCATGCCGCGCCTATTCTGTCTTTTCCGTCCACATT
 CCAATCATATTTACCCAAAACCTTATTGGCAGCATAGTCATACTCCACGACCAGCGGCG
 CATGGTCAGAAAATTTTTTTCATCTTTATAAACGTGTGCGGACACGGCTTTGGCAGCAAGTT
 CGGGCGTAACCATCTGATAATCGATGCGCCACCCGACATCTTTCGCATACGCCTGCCCTC
 10 GGTGCTCCACCAAGTGTAGCTTGCAGCTTGGCATTGCCGGAAGAAAGCAGGCTGCTGTT
 GAAATCTTCCGTCCAGTCCCAAATCAGCCCGTGCATATCATAAAC

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 11>:

gnm_11

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T C C A A G G C T T C G G C A T G T T G C T C C A T C A A T G C G A C A A A C G C G A C A T A T G C G T C C C C T T C
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A T A T T C A T G T A A T T G T T G A G A T G T G C A T G G T A T G C G T T T C C G C C G G G A A T A T A C C G
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25 T T T T C A G A T A G T G A T A A A T C T T C G A T T A T T C A C A T C T A C A T A G G C A G A G A C C A A A T G A A
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45 T A C A A C T T T G T A A A C T G T A A A A T G C C G T C T G A A A C C A T G G T T T C A G A C G G C A T T T C A A T
T A A C C C G G C C G A A A T C A A C G C T T C A A C A T C T T T G C C G C C T C A A T A G C G T A A T A G G T C A A
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 15 CGTACTGAATTTCCGCCACGGCTTCGTCAATGGCCTTGTTGACAATCAGGCCGGAACCGAC
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 20 TTTGATGTTGCTGTCGTTACGGACAACCAATACGGCACCGCTCCAGCTGTAAAGGATCGGA
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 GAAACGCCCCGCCTTCAAACCCGCCATCATCGAATCCCATTGCGTTTTCTTAAACTCGAC
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 GCCTTTATTGTTGATGCGCTCGATTAAAGAACCGGAAACTGCCGATTGTGCAGGCGCGGA
 AGATG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 12>:

gnm_12

25 CCGGCAAACGTTGCCTGCGCGGCTGGGACGTTTAAGTTTGATGTTGCCCGATCCGTCG
 GCGGAAATTTGGGCGGTGTATTTGGGCATTGTGCGCGGCTATGCGGTGGCGCGTTCATTT
 GTCAGCGTGAAGCGTCAGGAGGTCGAGAATGAATCTCGTGAAACTGCTGGCGAATAACTG
 GCAACCGATTGCCATTATCGCGCTTGTGCGCACGGGCTTGGCTGTGTGCGACCATCAAGG
 30 CTACAAGTCGGCATTTGCGAAGCAGCAGGCGGTTCATCGACAAGATGGAGCGCGACAAGGC
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 GGAAGTCAGCCGTCTGAAAACGGAAAGAGACCTTTGCAAAATTCCTTTCCCTCCCGACAG
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 35 GGCAGCGGGCGCACTTAACCTGTTGGCCGCTTTCAACAGGTTCAAACACATCGCCTTCAG
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 40 ATTTAAATTTAATCCACTATAACGGGTCTTCGATAAATATCGGTTACGCTTGGTTTGCAC
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30

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 13>:

gum_13

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TGTCTCTTTACGGCTCGTACAGCAGCCTGTTTCGTCCCGCAATCGCAAAAAGACGAACACG
25 GCAGCTACCTGAAACCCGTAACCGGCAACAATCTGGAAGCCGGCATCAAAGGCGAATGGC
TTGAAGGCCGTCTGAACGCATCCGCCGCGGTGACCGCGCCCGTAAAAACAACCTCGCCA
CCGACAGGACGCGACCCGAGCGGCAACACCTACTACCGCGCCGCCAACCAAGCCAAAA
CCACAGGCTGGGAAATCGAAGTCGGCGGCGCATCACGCCGAATGGCAGATACAGGCAG
GTTACAGCCAAAGCAAAACCCGACCAAGACGGCAGCGCCTGAACCCGACAGCGTAC
30 CCGAACGCAGCTTCAAACCTCTTCACTGCCTACCACTTTGCCCCGAAGCCCCCAGCGGCT
GGACCATCGGCGCAGGCGTGCGCTGGCAGAGCGAAACCCACACCGACCTGCCACGCTCC
GCATCCCCAACCCCGCCGCCAAAGCCCGCGCCGCGACAACAGCCGCCAAAAAGCCTACG
CCGTGCGCGACATCATGGCGCGTTACCGCTTCAATCCGCGCGCGGAACGTGTCGCTGAACG
TGGACAATCTGTTCAACAAACACTACCGCACCCAGCCCGACCGCCACAGCTACGGCGCAC
35 TCGGACAGATGAACGCGGCGTTTACCTATCGGTTTAAATAAGGTGCTCTGAAAACGGAGT
TTCTGCGAAGCTATAGTGGATTAACAAAAACCAAGTACGGTGTGCTCGCCTTAGCTCAA
AGAGAACGATTCTCTAAGGTGCTCAAGCACCAAGTGAATCGGTTCCGTACTATTGTACT
GTCTGCGGCTTCGTGCGCTTGTCTGATTTTGTTAATCCACTATAAAAGCAGCCTGCAC
ATTGAAAATGCCGCCAAGCAAACTTTCAGTTTGCCCGCCTCGTCTAGCCCTCTCCAC
40 GGGAGAGGGGATTGGGGTGAGGCTGCCCTTAAAGGTTACGGCAAAATTTAACTTCGTTGA
TACCGCGCTTTAGCTTCGAGAAGCTGCACTTTCAGACGACCTTTTGGAACACCACAGGT
ACACGCATTTAAGGAATGCCGTCTGAAATGCCTGCCTCAATAACGCATCATGTTGCCGTC
AATCTCGGCCGCCCATGCATCGATGCCGCCCTGAAGGTTGTACAGGTTTTCAAACCCGC
GTCCGCCAAATACATCGCCGTATGCAGGCTGCGGATACCGTGGTGCAATACACCACAAG
45 CGGCACATCATCCGGCAGCTCGTTCTGCCGACGCGGAATCAGATTATCGGGATATGCAG
CGCATTTGGCAGCGAACAACCGCCGTTTCTTCATCCGTACGCACGTCCAACAACAAAA
CATCCGCCCTTCGTCCATCCACGCTTTCATTCGCGGGCCCAAGTTGCACAATATCCAT
CGCACCCCCCAAAAAAACAAGCAAAATGCCGTCTGAAGCCCAAAACCGCTTTCAGAC
GGCATGACCTGTCAACATCTTAAAAATCGAAACCGCCAAACGGATCGGCATCCTTATCAT
50 CCAAATGCGCCACCAAGGTATCGAACAGCACCTTCTCTTCAAACACATCGCCCCCTGCGCG
TAATCAAAGCGCGGCTGAACAGGCTTGCGACCTACGATAACCACCATGCGTCCGCCAT
CTTTCACTGTCTTTCAACATTCAGGCACAAGGTTTACCGACCGCCGACATAAACCG
CATCAAACGCGCACCTGCGGAAAGTTTCGGTCAACCCGTTGTTTGCACATAATCGATAT
TGTCCAAACCCAAGCCGTCCAACACCGCTTTGGCGCGGTTTGTGCTGTTGCACATCGATGT
55 CGTCCGACACCACAGACCAGCCAATTTTGCCAACAGCGCGGTGCGATAGCCCGAACCCG
TGCCGATTTCCAAACCGTATCGTTTTCGTGAGCTTCAAGCCCTGCGCCAGCCGCGCCA
CGACTTTCGGCTCGAGCATCTTATGACCGTTGGCAAGCGGCAGCGCCATATCCGCATACG
CCAAACCCGTCAAGTCCTCATCGACAAAAAGCTCGCGCGGAATCTCCGCCAAAGCGTCCA

ACACATCAAAATCCAATACATCCCACGGACGGATTTGCTGTTGACCATATTGAACCGCG
 CTTTTTCAAAATCCATTTAGTGCTCCGTCAAATAATTGTTCCAACAATGGCAGGCATTAT
 AAAACCACTCCCGCCGCGCAACTTCGGCACGCGCCGACAGCCCGTTTTGTGAGTCTC
 AAACCGCCTGACGCGAAGCCTCAAACCGCTTCTCCAAAATCTTCGCCAGTTCGCCCAAAT
 5 ACAAAGCATCCGTCTCATCAAACGCGCCAAATGTCGCTGTCCGCGTCCAACACGCGGA
 TACAGCGGCGCTCTGAAAACAGCGGCACGACAATCTCCGAACGTGACAAAGACGAACAGG
 CAATATGGTGGGATGCGCGTTGACATCCTTAACAACCAACCGTTTTACCCCTTCGCCCCAAG
 CCTGACCGCACACCCCGCGACCGAACGGAATCCGCGTACACGCCAAAGGCCCTGAAACG
 GTGCCAAAACCAATTTCGTCCGAACGCGTATCGACCAAATAAAAACCCACCCAAAACCAAC
 10 CGAACGCCTCCTTCAAACCGCGCGCGTGTTCGCCAAATTCGCCACCCAATCCGCTCGT
 CAGCCACCACAGACTCAATCTGCGGCAACACCTCCCGATAAAGCGCGGCCTTGTCCGAAG
 CCGAAAAATGAAGCGCGTGCATCACATCTCCTATAGTTGCATACATATCAGGCGGCCATT
 ATAAAACAGCCTGCCGGAACAACATTCCAACCGCGCGCGCGCGCTTCAAGTTGCGA
 ACCCGCCGCATATCCACTAAACTTCACGTTGCACCGCGCCACACGCGGCAGACAAAAAA
 15 CACGACACGGAGCAAAAAAGATGTATCGCCAAATCGGAATGTGGGATCAAAAATGGGTCA
 TCGGCAACTGGAAAATGAACGGCGCGCTCCAAAACAACAACGCACTGATGCACCGCTTCC
 GCATCCACCCACCGCCGAACGCGTCTTCATCGGACTCGCGCCCCGACCGTTTACCTGC
 TGCAACTGCACAACGCCATGCAAATCGTTTTAAACAACCGCATCTCACCTGCGCCCCAAG
 ACGTGAGCCGCTTCCCCAATAACGGCGCGTACACCGCGGAAGTGTCCGCCGAAATGCTCG
 20 CCGACACCGGCACAGACATCGTCTCATCGGACACTCCGAACGCAGCCTTTATTTGCGCG
 AAAAAACGAAATCCAACGCGCAAAATGGAAAACGTCTCAACGTGCGACTCATCCGT
 TATTGTGCGTCGGCGAAAGCCTCGAAGAGCGCGAAGCCGGCAAAGAACGGAAGTCATCG
 CCCATCAGCTTTCCATCCTGCAAGGGCTGGATACCAAAAACATCGCCGTCGCCTACGAAC
 CCGTCTGGGCGATCGGCACCGGCAAAAGTCGCCACCGTCGAACAGATTGCCGATATGCACG
 25 CATTCTCTACAAAGAAATCTTGTCTTTGTGCGGAAGCGATGTTAAAATCCGCGTCTTT
 ACGGCGGAAGTGTGAAAGCGGACAACGCGCGGACATCTTCGCAGTACCTTATGTGGAC
 CGCAACTCGTCGGCGCGCTTTCATTGTCTGACGACTCCTTTACCGCCATCATCAGTCCCG
 CACAAAATGCGTAGAAAATTATGGAACCTTCAAACCTTAATTGGATTGTTAATTTAA
 TTTCCGCTTTGGCCGTCTTCGTGTTAGTATTGCTCCAACACGGCAAAGGCGCGGATGCCG
 30 GCGCGACTTTTCGGAT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 14>:

gnm_14

CATCGCCCCGCCACGGCATGATTGACATCGACATCAGCTGCAAAGGCGACCTGCACATCGA
 35 CGACCACCACACCGCCGAAGACATCGGCATCACACTCGGACAAGCAATCCGGCAGGCACT
 CGGCGACAAAAAGGCATCCGCGCTTACGGACATTCTACGTCCCGCTCGACGAAGCCCT
 CAGCCGCGTCGTATCGACCTTTCCGGCCGCCCGGACTCGTGTACAACATCGAATTTAC
 CCGCGCACTAATCGGACGTTTCGATGTGATTTGTTTGAAGAATTTTCCACGGCATCGT
 CAACCACAGTATGATGACCCTGCACATCGACAACCTCAGCGGCAAAAACGCCACCATCA
 40 GCGGGAACCGTATTCAAAGCCTTCGGCGCGCCCTGCGTATGGCAGTCGAACACGACCC
 GCGCATGGCAGGACAGACCCCTCGACCAAAGGCACGCTGACCGCATAAAAAACCATACC
 GTCTGAAACACCCGCAAGCTTTTCAGACGGTATCGGAACAGATAAGATTACACTACACTA
 CAAACAGAAAAGGAGTAACATCATGTCCGCAAACGAATACGCACAAATCGGCTGGATAG
 GCTTAGGGCAAATGGGTCTGCCTATGGTAACGCGGCTCTTGACGGCGGCATCGAAGTCG
 45 GCGTATACAACCGCTCGCCGACAAAACCTGCCCCATCTCCGCCAAAGGCGCAAAAGTTT
 ACGGCAACACCGCGAAGTCTCGCGGACTATCCCGTCATTTCTCTGATGGTTTCGACT
 ATGCCGCGTGTGCGACATCTGAACGGAGTCCGCGACGATTGGCCGGCAAATCATCG
 TCAACATGAGCACCATCTCCCGACCGAAAACCTCGCCGTCAAAGCACTTGTGAAGCCG
 CAGnCGACAGTTTGCCGAAGCACCGTTTCCGGATCGGTGCGGCCCCGCCACCAACGGCA
 50 CGCTGCTGATTCTGTTCCGGCGGACGGAAGCCgTTTTAAACCGCTGCAAAAATATTTT
 CCTCTGTCGGCAAAAAACCTTCCATTTCCGGCATGTGCGCAAAGGTTCCGGCGCGAAAC
 TCGTCTTGAACCTCGCTCTTGGGCATTTTCGGCGAAGCGTACAGCGAAkCGATGCTGATGG
 CGCGGCAGTTCCGGCATCGATACCGACACCATCGTGAAGCCATCGGsgACTCGGCAATGG

ACTCGCCCATGTTCCAAACCAAAAAATCCCTGTGGGCAAACCGCGAATTCCCGCCCGCCT
TCGCCCTCAAACACGCCCTCCAAAGACCTCAACCTCGCCGTCAAAGAGCTTGAACAGGCAG
GCAACACCCCTGCCCGCCGTGCAAACCGTTGCTGCCAGCTACCGCAAAGCAGTGAAGCCG
GCTACGGCGAACAGGACGTTTCCGGCGTTTACCTGAAACTGGCAGAACTGATTGCCTT
5 TTCCAAACACAATGCCGTCTGAACATATTTTACAGCGGCATTTTTATCACCCACGCTTAA
AATCAGTCCCGATTATGACTATATAGTGGATTAAACAAAAATCAGGACAAGGCGACGAAGC
CGCAGACAGTACAAATAGTACGGAACCGATTCACTTGGTGCTTCAGCACCTTAGAGAATC
GTTCTCTTTGAGCTAAGGCGAGGCAACGCCGTACTGGTTTTTGTAACTCACTATAATCC
GCACAAATTTAGTCAATATCAAGACCAATTATGAACCAACTCGACCAACTTGGCACCCGT
10 ATCAACCTGATTTGCAATGTCTTCGACAAATGGATCGGGCAGCAGGATCTGAATTACAAC
CTCTTTGCCGTACTTTATACCTGGCAACCGAAGGCAGCCGCACGCAAAAGCATATCGGC
GAAAAGTGGAGCCTGCCCAAACAGACCGTTTCAGGCGTATGCAAAACCCCTGCCGACAA
GGGTTGATTGAATGGCAGGAAGGCGAACAGGACCGGCGCAAACGGTTGCTGTGCTTGACC
GAAACAGGCAAAGCCTATGCCGCACCTTTAACAGAAAGCGCGCAGGAATTCAGCGACAAA
15 GTATTTGCCACATTCGGCGACAAGCGCACAACTCGGCTGTTTGCCGATTGGATGCACTG
GCTGAAGTGATGGAAAAACAATCTCGGAAAAATAAAAAATAGGGGGGCAAAATATGTGGAA
AATGTTGAACACATAGCCCAAACCCACCGCAAGCGATTGATTGGCACATTTTCCCTGGT
CGGACTGGAACCTTTGATGCTGGTGATCCGGTGTTTGGCGGCCGGCGATCAATGC
CGTGATTGCGGGGAGGTGTGGCAGGCGTTGCTGTACGCTTTGGTTGTGCTTTTGAIGTG
20 GCTGGTCCGTGCGGTGCGGCGGATTGCCGATACGCGCACGTTTACCGCGATTATACCGA
AATCGCCGTGCCGGTGTGTTGGAACAGCGGCAGCGACAAGTCCCGCATTTCGGCGGTAAC
TGCGCGGGTTGCCCTGTGCGGTGAGTTTGTGACGTTTTTGAAGAACACCTGCCGATTGC
CGCGACATCCGTGCTATCCATATTCGGCGCGTGCATCATGCTGCTGGTGCTGGAATTTTG
GGTCCGGCGTGTGCGCGGTGGGCATACCTGCGTTGTTTTATGGCTTTTGCCACGTTTTGC
25 CGCCATCAGCGAAAACCTGTATTTCCGCCTGAACAACAGCTTGAACCGCGACAACCACTT
TATCCGAAAAGGCGACCGGCGGCAGCTGTACCGCCATTACGGACTGCTTGCGCGCCTGCG
TGTGCTGATTTCCAACCGCAAGCCTTCGGCTATCTCTGCGTCGGCACGGCGATGGGTAT
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CTATTCGGTCGGCACTTATCTGTGGATGTTTGCCATGAGTTTGGACGACGTGCCGCGATT
30 GGTGCAACAATATTCCAATTTGAAAGACATCGGACAACGGATAGAGTGGTCGGAACGGAA
CATCAAAGCCGGAACCTGAAAAATGCCGTCTGAACACGCTTCAGACGGCATTTCCATCCG
TTCGGCAAACCTACATCACATCCGCCCGCCGGTTGACAAGTTTGGCAAACAACCTTTTCAAC
AGAAGCTTCCGCCTGCAAACCAATGCGCTGGATCAGGCTTTGCTTCTCCTGATATTTAC
TTCGATAACCTGTTTGTTCACACGCTTTCAACAACAATCATCACTGGTCGAAATCTC
35 GTCAATCAAGTTCAACGCCAACGCCCTGCCGACCGAACCAATGCTCGCCCGTTGCCACTTC
CTCAATATCCAATTGAGGGCGGTTCTCGCTGACAACTGCTTGAACAACCTGATGCGTTTC
CTCCAGTTCCCTGTGCGAATTTCTGTTTGCCCTTTTCCGTATTTTACCCATAAAAGTAAC
CGTGCGCTTAAATTCGCCCGCCGTATCACATCCACATCAATATCATGTTTTTTCAACAG
GCGGTGGATATTCCGTACTTCCGCCACCACACCCACCGAACCGACAATCGCAAACGGAGC
40 GGAAGCAATTTTATCCGCCACACACGCCATCATATAACCGCCGCTCGCCGCCACCTTATC
GACGGCGACGGTCAGCGGAATATTGCGTTGCGGCAAACGCyTAAGCTGCGAAGCCGCCAA
ACCGTAACCGTGAACCACGCCGCCCGGACTTTCCAATCTGAGCAGAACCTCATCTTCAGG
CTTGGCAATCAAAGCACCGCCGTAATCTCATGACGCAAGGATTCTACGGCGTGTGCATA
CAAATCGCGTCAAAATCCAACACAAAAAGGCGGGATTTTGGCTTTTCGGCAGATTTCTC
45 CCCACCCCTCCTTCAAACGCTTTTTCTCTGCTTTGGCTTCCGCCCTTTTCTTTTCTTTTC
CTCTTTTTCTGATGTTTTGCTCTTCCCGCTTAAAAAGAATGCTTCAAACGATTGCCG
CTGTTTTTTATAATTTTCCGAAAAATCCGTGAGTACGACACTGCCGCTTTCCGACTGTTT
CTTACTCTGTACGATAGCCAACACAATCAGCGCAATTGCGCGAACACGGTAAGCAGTTC
GAGCAGGAAAAATACCGTAATTCAGTAAAAATTTCTTTCCACATTGATTGGATTTCTCTTG
50 TTCAGGCATGAACATGTCAATATTGTCCATCACCGTCCGACAGATAAAAAAATAACCGCT
TGGAGCGGCATTGTCAATTTTACGCTTGGTGCCCGGAGCCGGAATCGAACCAGGCACGGGAT
GTTTAGTCCCGACGGATTTTAAAGTCCGTGTTGTCTACCTATTTACCACCCGGGCATTG
TGAAAGGTGGAGGCGGGGCGCGGATTTTAAACGGCCTGTATGAAGATTGCACTCCTCAT
AGCATAAAACACTCTGCCACCCCGCCATAGTACGATAATGGAGGCGAGAGTCGGAATCGAA
55 CCGGCGTAGACGGATTTGCAATCCGCTGCATAACCACTTTGCTATCTCGCCCTAAACTG
GCTTATCTAAAAAATTTGGAGCGGGAACGAGTCTCGAACTCGCGACCTCAACCTTGGCA
AGGTTGCGCTCTACCAACTGAGCTATTCCCGCGCGTTCAAACATATCGGTTTTTGGAGCG

-168-

GGAAACGAGTCTCGAACTCGCGACCTCAACCTTGGCAAGGTTGCGCTCTACCAACTGAGC
TATTCCCGCGTTGATATGTTTGAATAAACTTGGAGCGGGAAACGAGTCTCGAACTCGC
GACCTCAACCTTGGCAAGGTTGCGCTCTACCAACTGAGCTATTCCCGCAATGATTGCGGA
5 AGAATGAAATTTTGGAGCGGGAAACGAGTCTCGAACTCGCGACCTCAACCTTGGCAAGG
TTGCGCTCTACCAACTGAGCTATTCCCGCCCGATTTCATTCTCGATATCGAAGAGACAC
AATTATT

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 15>:

gnm_15

10 GTTCTGCCTGTATGATTAGCGTTTATTTGATTTGCTTTCTCATTTGGATATGAAATTCGT
CAGCGACCTTTTGTCCGTCATCCTGTTTTTCGCCACCTATACCGTTACCAAAAACATGAT
TGCCGCAACGGCGGTGCGATTGGTTGCCGGTGTGGTTGAGCGGCTTTTCTGTATTGGAA
ATATAAAAAGCTGGATACGATGCAGTGGGTGCGATTGGTGCTGATTGTGGTATTCGGCGG
CGCAACCATTGTTTTGGGCGACAGCCGCTTCATTATGTGGAAGCCGAGCGTTTTGTTTTG
15 GCTGGGCGCGCTGTTTCTGTGGGGCAGCCACCTCGCCGGTAAAAACGGCTTGAAGGCGAG
TATCGGCAGGGAGATTGAGCTTCGGGATGCCGTATGGGCGAAATTGACGTATATGTGGGT
CGGTTTTCTGATTTTTATGGGTATCGCCAACCTGGTTTGTGTTACCCGGTTCGAGTCGCA
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GGGTATTTATCTGAGTACCTGTCTGAAAAAGGAGGATTGACTGTGGAATATTTTATGTTG
20 CTGGCAACAGACGGGGAGGATGTGCACGAGGCGCGTATGGCGGCACGTCCCGAACACCTC
AAACGGCTGGAGACGCTGAAGTCGGAAGGCCGGCTGTTGACGGCAGGCCCGAATCCTTTG
CCGGAGGACTCCAACCGCGTTTCGGGCAGTTTGATTGTGGCGCAGTTCGAGTCTTTGGAT
GCGGCGCAGGCTTGGGCGGAAGACGATCCCTATGTTTCATGCAGGCGTGTACAGCGAAGTG
CTGATCAAGCCGTTTAAAGCGGTGTTCAAATAATGCCGCGCTCGATTTGATCCGCGAAC
25 GCCTGCAGACGCTCGATCCGCTGGTGTGGAAATCGGCGATGAGAGCCATCTGCACAAAAG
GACACGCGGGCAATACCGGCGGCGGACATTATGCCGTTTTGGTTCGTTAGCGGCCGTTTTG
AAGCGTAAGCCGCCTGAACCGCCAGAAAACGGTCAAATCGCTGCTCAAAGATTTGTTTT
CAGGCGCATGATTACGCGCTCGGCATCCGGGCGGCTACCCCTGACGAGTATTTCCATA
CGGCGGACTGAATGAAGTCTGCCCGAACATTTCAATTTAAAAATTTAAAGAGAGAAGATTA
30 TGAAAGCAAAAATCCTGACTTCCGTTGCACTGCTTGCTTCCGTCAGCCTGTTTGCCC
AAACGCTGGCAACCGTCAACGGTCAGAAAATCGACAGTCCGTCATCGATGCGCAGGTTG
CCGCAATCCGTTGCGGAAAACAGCCGTGCCGAAGACACGCCCAACTGCGCCAATCCCTGC
TGGAAAACGAAGTGGTCAATACCGTGGTGCACAGGAAGTGAAACGCCTGAAACTCGACC
GGTCGGCAGAGTTTAAAAATGCGCTTGCCAAATGCGTGCCGAAGCGAAAAAGTCGGGCG
35 ACGACAAGAAACCGTCTTCAAACCGTTTGGCAGGCGGTAATATGGCTTGAAACGGCG
AGGCATACGCAATTGCATATCGCCAAAACCAACCGTTTCCGAGCAGGAAGTAAAAGCCG
CATATGACAATATCAGCGGTTTTTACAAAGGTACGCAGGAAGTCCAGTTGGGCGAAATCC
TGACCGACAAGGAAGAAAATGCAAAAAAAGCGGTTGCCGACTTGAAGGCGAAAAAAGGTT
TCGATGCCGTCTTGAACAATATTCCTCAACGACCGTACCAACAGACCGGTGCGCCGG
40 TCGGATATGTCCCGCTGAAAGATTTGGAACAGGGTGTCCGCGGCTTTATCAGGCAATTA
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AGATTGCGGGCAACCTTCAGGCGGAACGGATTGACCGTGCCGTGGTGCCTGTTGGGCA
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45 ACAGGCGTTTTTGCCGCGCGCAGGACAGGGAATACCATGAAACAGAAAAAACCCTGCC
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50 CGCTTTAAAAATCGCCGAAGCGTCTTTTTATGCCGAGGAGTACGTCCGTTTTCTGGAACGT
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GACGGTTTCATTATGGCGCAGCAGCTTCCCGAGCCGCTGGCTTCGCAGTTTGCCGCGATG
AATCGGGGCGACGTTACCCGCGATCCGGTCAAATTGGGCGAACGCTATTATCTGTTCAA
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5 GGTGTCAAACCGTAATGGCATTTCCTAATACCGATGCCGTCTGAAGCCTTTCAGACGGCAT
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10 GATGTCCGGCGGCGCGGTGCTGCTGGTGTGCGAGTTTACGCTTTATGCCGACGCGGCAAG
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CGAACGGCGGAACGTGTGCGCGGACACGGGATTTCATGTCGAAACAGGGCGTTTCCGCACG
CATATGCAGGTGTCGCTCTGCAACGATGGGCCGGTAACCATACTGCTGGACTCTTTCATG
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15 ATATCGACAATGAACGACAATACACACACCCTTCCCCCGCGCCACCTGTCCGTGCGCCCC
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GGCAGCGTGCAGCGACAAAACCGCCTGCAAAACCTTTATCGTCCAGCCCCGCAACGCTTGG
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25 TACCGCCTCAAGCAGGAGTTTCCCGGGCTGGAAATCATCATCAACGGCGGCATCACCACC
AACGAAGCAATCGCAGGACACCTGCAACACGTTGACGGCGTGATGGTTCGGGCGCGAGGCG
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30 CTGAAAGGCGCGCGGACTTGGCGGCGTATGCTTTCGACGCAACGCTCTTGAAAGACAAC
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35 GTAACGGAAACACTTGGCGGAGGAGTTGTTTCGGGCGGTTTAAATCCAATGCGGGGGCGAG
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45 CGTGTGCAGGATATGGCTTGCCGCCCCCGGCATTTCCGCGGGCGGATCGAGGTCTTCCAT
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CAGCGAGCCGATGTGGAGCAGCCCGGTGCGGCTGGGGGCAAAACGTCCTGTGTACATATC
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TCAAATTTCCACGAAAAAAACGAAGTAAATAAGTCAATGACTTTTCCCAAGTTTCTTTT
GAACATTCTTTAAGAATTTTCTCAATTTCCGATTTAATAACAGAATGATTAAATTCATTC
55 ATAATCATCATACCCGCCCCCATTTAACCTTTGATTTTGAAACAATTATGCAAAATC
CATTTAGGAGAGCATATGCGAACAGAAAAATATATCTGCAGCATCACTATCATCAGTTCCT
ATGTCTAAATCAATTCACACAAAAATTGTCTTTGATTTCCGGGAACGAAATCTTCAAAG

GCACAATCGTAAAGATTGATGGCTTTCAATTCTAGGTTAATCATTTTATATTCAATAGTA
TGGGGAGGTACCGGATCCTTAAAAATCAGATCTGAATAAATTTTATTGGGTGAAATGATT
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GCCAAGGTTTCGACATCGATGCCGAGCGCGGCGGTTTCGGCGAGCTGCGCTTGTGCTTCT
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10 GGATAGGCCGGGTTTTTACGCGCGGTAGATGCCCATAAAAGCTGCACGCGGTTTGCGCCT
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15 GCGCGTGAGAACAGCAGGGTCAGGTTACGCTGATGCCGTCTGAAACGAGGGTTTTGAGC
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20 TTTTGCTGCTTGAAGGCGGCGATTTTCATCGCGTAAAGCGCGTCGCGGCGAAGGCTTTT
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 40 TGGTCACCG

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 16>:

gnm_16

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The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 17>:

gnm_17

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The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 18>:

5 **gnm_18**

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 45 GTTTGACAAACTCGCCGCCGCGCCGAGCAGTCCCATTACCAACACGATGCCGGTAATCG
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The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 19>:

gnm_19

CCGCAATGCCAAACGTGCATCATCAACGATGTGTGCGAATATCCCGCCAAAGCCTGACTG
 50 CCGCCGCTGTCAAATGAAACGCTTGAAAGTTCGGACGGACGTTGTAGAATTTCAACGT
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CCTTCGTAGAACGCATCGAACACACCAAAGACGACGGCAGCGTCAGTATGCTGCTGCCCCG
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5 ACGACCCGTTCTACGAATTTTCAAACGCCTCGTCCCGAATATGCCCGAAATCCCCAAG
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10 GTACGCGGCAGCAACCTTATTTCTGATAAGGGCATGTGTTTAAAGCAGGACACGACATC
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 20 CGGTTGCCGGCGTGATGACGGACGCGCTAGCGGACGGCAGGAAGCCGACAACCGCTTCAA
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 25 TCGCGCCGCGTCCATGCTCGCCGAAGAAGTTTTCGGTTTCGGTATCTACAAAGAATCCAA
 AGGTTTCGGGCGGTCTTTCTATGAGCGCTGTTGGTTGATGGGTTTCGGAAGACGCCCTATA
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 TTGCGGCGTTCGCAAAAGAAGGCTGGGAATCACGACTTTTCGCATTCCTGACTAATGCAAT
 CCGCCCAAAAATCACACGCGTTGACATCGCAAAAGACTTTTTTCAACGGCGAAT

30

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 20>:

gnm_20

TGTTAACTGTTTAATCCTAACGTCAAATATGCCGTCTGAAAAGCCGAAGCCGCGCACAAA
 sGCAAAAACGGCAGGATAAAACCGTGCCGACGCAACCGGGGCGTGTTGAGACTTTGCGGT
 35 AGGGATTTTCCAAACCTTCAATCAGCGCGAGCAGGTAATCGCGCAACTGACGTTTCGCCGC
 AACCATCAGCAGCGCGTCTTCAAACGCGTCTTGTCGCGTCTGATACAGCTCGGCCATAT
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 40 TCAGGCTGGTGATTTTCGATATTTTCCCCGTGCGCGGCGCGTGGATGAAGCGGTTGTTGC
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 45 CGTTGCCGATGAGTTTCGTTCGGCATTGCCCGCCCGCGGGCGGGGCTCGGTTGACGGGTA
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5 GGCAGCACATTGTAAACAGAAAACTATCCCGCCGCCATCCGCCGCGCTTTGGGTGAGT
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10 GGCAGGGCGTAGTGCTTTTGAAGGCGGCGGTATCGCGCAAATGTTGGTGAACATATATGA
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40 GAGGACGGTCAGCTCGGTGAGCTTGTGCGCGAGCGGCGCGTCTTCGAGCGGTGTACCGTT
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The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 21>:

30 **gnm_21**

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40 GGAATGATGAAATTTTAAAGTTTATAGGAATTTATCGAAAAACAGAAACCGCTCCGCCG
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TTCTTTAGATTTTACGTTCTGGATTCTACTTTTCGTGGGAAAGACGAATTTTAGGTTTCT
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45 GGAACTTATCGGGTAAAAAGGTTTCTTTAGTTTGGTGTGATTTTGTGCGTGCCGGTGG
CGGCGGCAACGTCGTCTTTGGCGTTGTGCGCGCGCGTAACCGGCTGTCCGCAGAACCAT
TTACCGAACCGGCTTACGCTTGGCCACAGGGAGAGTTTTTTGCCTTTGATTTTCGTTGT
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50 TTCCCACTTTCGTGGGAATGACGGGATTAAAGTTTCAAATTTATCTAAATAACTGAAA
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CGGGAACCGGTTTTCTTGAGATTTTGGCTTCTGGATTCCCGCTTTCGTGGGAATGACGGT
55 TTAGGTATTTTTATAGAAAGCCGTAGGTGGTGTCTATGCAAACGACAGATGAAGCGTC
GCGGCAGGTTGACGGCAGGTGCTTGGTGTGATGTTGTGCGCGCTTTGGCGGCGGCGGC
GACGGTGTGCGCTTTGGCGTGGTGCGCGTAACCGGCTGTCCGCAGAACCATTTTACCGA

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 5 GTCATTCCCGCGCAGGCGGGAATCCAGGTCTGTGCGGTACGGAACTTATCGGGTAAAACG
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 ATTTGCCCTTTGATGTGCGAGGAGGATGCCACGCCGCGGCATCATTAATCCCGTCATTC
 15 CCGCAAAAGCGGGAATCTAGAACTCAGGACCGGAGAAACCTTTTACCCGATAAGTTTCC
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 AGGTTTTCTGTTTGTGGGTTTTCTGTTCTTGTGGGAATGATGAAATTTAAGTTTTAGGAAT
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 20 GTCGGTACGGAACTTATCGGGTAAAAAGGTTTCTCTAGTTTGGTGTGATTTTCTTGTG
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 CATTTTACCGAACCGTCTTGACGCTTGGCCACAGGGAGAGTTTTTTCCTTGGATTCTT
 TTGTTTACGCCGCTTGAAAGCATTGTGGCGGTAATGACGCCGTTTTCGCTGTAACCTCC
 25 TTAACATATTTGCCTTTGATTGTTGAAGAAGATGCCACGCCGCGCAGAAGTGTGTTTTT
 GGCCATTCGCCGTGATTTCGGTAATACTCGGGTGTTTTTTGIGCAAACGGCAGATGCTGCG
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 30 CTTGAAGCATTGTGGCGGTAACGACGCCGTTTTCGACTGTAACTTCCTTAACATATTTT
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 35 CAGGTGCTTGGTGTCAATCTTCTTACCGTTGGCGGCGGCGGCGGCGGTAACGTCGTCGTT
 GGCGGCTTTGGCGTTGTGCGCTCAACCGGCTGTCCGAGAACCATTTTACCGAACCGGC
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 CTTCAAATATCAAAGTGGCGTGGGGGGAATCACGCCGCCCGCGCGTGTGCGCCGTAGC
 40 CCATTTCCGAAGGGATGGTCAGCTTGCCTTTGCCGCTTCCTTCATGCCGCCGAAGCCTT
 CGTCCCAGCCTTTGATGACTTGTCCGACACCGAGCGTGATGCTCAGCGGCTGGCGGCGGT
 CGAGGCTGGAGTCGAATTTGGTCCGTTTTCCAGCCAACTGTGTAATGCACGGTAATCT
 CTTTGCCTTTAACTGCTTCTTTCCGAAGCCTTCTTGCAAGTCTTCAATAATCAGGCCG
 CCATATTTGTCCTTTTCGTTGCTTGTGGTCAAAACGGCAAGGGTAACATACCGT
 45

The following partial DNA sequence was identified in *N. meningitidis* <SEQ ID 22>:

gnm_22

AATTAATAATAATTATCATTATATTAATATGTACAGATAATATCAAGCCGTTTTTATAGT
 GAATTAACAAAATCAGGACAAGGCGACGAGCCGACAGTACAGATACATTCCGTCAT
 50 TCCCACGAACCTACATCCCGTCATTCCCACGAACCTGCACCACGTCATTCCCACGAAAGT
 GGGAAATCCAGTTCGTTTCGTTTTCGTTGTTTTAAGTTTCGGGTAACCTTCTACTTCGTCAT
 TCCCACGAACCTGCATCCCGTCATTCCCACGAAGTGGGAATCCAGGACGCAAAATCTCA
 AGAAACCGTTTTACCTGATAAGTTTCCGCACTGACAGACCTAGATTCCCGCCTGCGCGGG

AATGACGGGATTTGAGATTGCGGCATTTATCGGGAGCAACAGAAGCCGCTCTGCCGTCAT
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5 TGGGGGCATTTATTGGGAAAAGCAGAAACCGCTCCGCCGTCATTCCCACGAAAGTGGGAA
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10 ACTGACAGACCTAGATTCCCGCCTTATATGATGCGCTCTATCAAAGGGGCGCATTAATTT
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20 CTTTAGCTGAAAGTTTCCGGTTGCCCTTTATTTTCTGATGCTGAATACATGTATGTATTAA
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